

# Maine Crash Reporting System 2.0

## Maine Crash Data Standard and Crash Form Revision 2010



*Maine Department of Public Safety*

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## **Background**

The current State of Maine Traffic Accident Report was established in 1997. All Maine police agencies use this report as a standard method of recording crash information. The report captures crash information that describes and documents motor vehicle related crashes that occur in the State of Maine.

In the mid 1990s, an effort was begun by the National Highway Traffic Safety Administration (NHTSA) to establish a uniform data model that would definitively describe each crash. This data model would provide a common method of recording crash information in all states and territories. The name of this data model is the Model Minimum Uniform Crash Criteria (MMUCC). The MMUCC was originally suggested as a voluntary guideline in 1998 but gradually gained acceptance and use throughout the United States.

In 2005, congress implemented the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) legislation. This legislation requires States to improve MMUCC compliance as a prerequisite for Section 408 grants funding.

The State of Maine is updating their crash reporting to improve MMUCC compliance through a cooperative effort between Federal, State and local agencies. This multi-agency effort is being lead by the Maine State Police under the auspices of the Maine Bureau of Public Safety and the Maine Traffic Records Coordinating Committee.

## **Narrative**

The Maine Crash Report Redesign Process was designed to balance the need to improve MMUCC compliance and limit the impact to the officer collecting crash data at the crash scene. Additionally, improved data fidelity will allow the development of more effective roadway safety countermeasures which should decrease crash frequency and severity. The following process was developed to balance these concerns.

### **Evaluate old Crash Report**

- Baseline MMUCC compliance - establish MMUCC compliance to measure new crash improvement.
- Baseline FMCSA SafetyNet compliance - evaluate SafetyNet compliance and identify deficiencies; Investigate possible over reporting of commercial crashes
- Identify and assign data element owners/users - remove unused data elements and attributes; Remove data elements and attributes that can be derived
- Cross reference data elements and attributes with MMUCC 2008 Guideline. Investigate ways to improve MMUCC compliance without losing historical data continuity.

### **Establish Crash Form Redesign Working Group**

- Working Group Members - Members are selected based on historical data users/owners and domain expertise

- Goals and Priorities - Identify tenets such as improve accuracy and completeness; Limit impact on data collector; Improve data quality of work zone crashes;
- Identify Data Opportunities - Look for other data uses such as recovering cost to repair State property damaged in a crash.
- Select Candidate Data Elements - Identify data elements and attributes based on Goals and Priorities.
- Prepare Data Elements Document - Build Data Structures and Reference Tables document describing all data elements, attributes and structures.
- Review and Comment - Distribute Data Structures and Reference Tables document to all data owners and users for comment.
- Revise and Publish - Incorporate feedback from data owners and users and publish results

The outcome of the Maine Crash Report Redesign Process is the updated data structures, data elements and attributes that will comprise the new State of Maine Traffic Crash Report.

### **Maine Crash Report Redesign Participants**

The following agencies participated in the crash report redesign process. Through their efforts, the State of Maine has established a modern crash report standard that allows continued NHTSA grant funding for improving road safety in the State of Maine.

Maine State Police

Maine Department of Public Safety

Maine Department of Transportation

Maine Bureau of Motor Vehicles

Biddeford Police Department

Maine State Warden Service

## **Summary**

The data structures, elements and attributes defined in this document describe the new elements for the revised 2010 Maine Traffic Crash Report form. The audit rules described in this document will ensure the quality of collected data. This data set improvement will provide the State of Maine the ability to identify crash trends and measure the effectiveness of enforcement and deployed safety countermeasures.

The State of Maine 2010 Crash Forms are included as Appendix A of this document. An example crash report is included as Appendix B.

This document describes the data standard and audit rules defined in the following documents:

- [\*\*MaineCrashReport\\_1\\_0.xsd\*\*](#) – Schema for crash data (main system and reference tables).
- [\*\*MaineCrashReport\\_1\\_0.xsl\*\*](#) – Audit rules for crash data

## SYSTEM DATA TABLES

The Maine Crash Data Exchange Standard Data Tables are listed below. These are listed here for quick reference. Always refer to the Maine Crash Data Standard XSD document for design and implementation.

### CrashReport

<u>Data Element</u>	<u>Data Type</u>
ReportingAgency	refReportingAgency
ReportNumber	xs:string
CrashDate	xs:dateTime
CrashTime	xs:dateTime
ReportDate	xs:dateTime
SceneArrivalDate	xs:dateTime
SceneArrivalTime	xs:dateTime
CityOrTown	refCityOrTown
StreetOrHighway	xs:string MaxLength=50
PostedSpeedLimit	refPostedSpeedLimit
OffRoadOrFW	xs:boolean
NearestIntersectingStreet	xs:string MaxLength=50
DirectionFromNearestIntersect	refDirFromNearestInterToCrash
DistFromNearestIntersectValue	xs:double
DistFromNearestIntersectUnit	refDistFromNearestInterUnit
Latitude	xs:double
Longitude	xs:double
ReportingOfficerName	xs:string MaxLength=50
ReportingOfficerBadgeNumber	xs:string MaxLength=20
RoadSurfaceCondition	refRoadSurfaceCondition
RoadGrade	refRoadGrade
LightCondition	refLightCondition
WeatherCondition	refWeatherCondition
TypeOfCrash	refTypeOfCrash
TrafficControlDevice	refTrafficControlDevice
TrafficControlDevOperational	refYesNoUnknown
SchoolBusRelatedCrash	refSchoolBusRelatedCrash
WorkZoneInOrNear	refYesNoUnknown
WorkZoneLocation	refWorkZoneLocation
WorkZoneType	refWorkZoneType
WorkZoneWorkersPresent	refYesNoUnknown
WorkZonePolicePresent	refWorkZonePolicePresent
ContribCircumstancesEnviron1	refContribCircumstancesEnviron
ContribCircumstancesEnviron2	refContribCircumstancesEnviron
ContributingCircumstancesRoad1	refContribCircumstancesRoad
ContributingCircumstancesRoad2	refContribCircumstancesRoad

Narrative	xs:string
LastDateTimeModified	xs:dateTime
DateTimeReportCreated	xs:dateTime
ApprovedBy	xs:string MaxLength=50
ApprovedDate	xs:dateTime
TypeOfLocation	refTypeLocation
CrashSystemAndVersion	xs:string MaxLength=50
ElementId	xs:int
Node1	xs:int
Node2	xs:int
MeasurementNode	xs:int
Offset	xs:decimal
IsTotalDamageOverThreshold	xs:boolean
LocationOfFirstHarmfulEvent	refLocationOfFirstHarmfulEvent
XSDFileName	xs:string MaxLength=50
XSLFileName	xs:string MaxLength=50

## Units

<u>Data Element</u>	<u>Data Type</u>
UnitId	xs:int
UnitType	refUnitTypes
HitAndRun	xs:boolean
VehicleYear	xs:short
VehicleMake	refVehicleMake
VehicleColor	refVehicleColor
LicensePlateNumber	xs:string MaxLength=25
LicensePlateState	refStates
VIN	xs:string MaxLength=17
NoInsurance	xs:boolean
NAIC	xs:string MaxLength=5
InsuranceCompanyName	xs:string MaxLength=50
InsurancePolicyNumber	xs:string MaxLength=50
VehicleTravelDirection	refVehicleTravelDirection
HazMatPlacarded	refYesNo

VehicleHas9orMoreSeats	refYesNo
SpecialFunctionVehicle	refSpecialFunctionVehicle
ExemptVehicle	refYesNo
EmergencyVehRespondingToCall	refYesNo
ExtentOfDamage	refExtentOfDamage
MostHarmfulEvent	refMostHarmfulEvent
PreCrashActions	refPreCrashActions
MostDamagedArea	refVehicleDamageArea
SequenceOfEvents1	refSequenceOfEventsVehicle
SequenceOfEvents2	refSequenceOfEventsVehicle
SequenceOfEvents3	refSequenceOfEventsVehicle
SequenceOfEvents4	refSequenceOfEventsVehicle
ContribCircumstancesVehicle	refContribCircumstancesVehicle
GVWRorGCWR	refGVWRGCWR
VehicleConfiguration	refVehicleConfiguration

## Commercial

<u>Data Element</u>	<u>Data Type</u>
MCSAPNumber	xs:string MaxLength=15
BusUse	refBusUse
CargoBodyType	refCargoBodyType
HazMat4DigitNumber	xs:string MaxLength=4
HazMatClassNumber	refHMClassNumber
WasHazardousMaterialsReleased	refYesNoUnknown
MotorCarrierType	refMotorCarrierType
CarrierName	xs:string MaxLength=50
CarrierStreetAddress	xs:string MaxLength=50
CarrierCityorTown	xs:string MaxLength=50
CarrierState	refStates

CarrierZipCode	xs:string MaxLength=10
CarrierPhone	xs:string MaxLength=15
NoCarrierIdentificationNumbers	xs:boolean
USDOTNumber	xs:string MaxLength=9
MCMXNumber	xs:string MaxLength=6
StateNumber	xs:string MaxLength=12
CommodityCode	refCommodityCode
CargoCode	refCargoCode
OverSizePermitWeight	xs:boolean
OverSizePermitLength	xs:boolean
OverSizePermitHeight	xs:boolean
OverSizePermitWidth	xs:boolean

## Persons

<u>Data Element</u>	<u>Data Type</u>
PersonId	xs:int
PersonType	refPersonType
LastName	xs:string MaxLength=50
FirstName	xs:string MaxLength=50
MiddleInitial	xs:string MaxLength=1
Address	xs:string MaxLength=50
CityOrTown	xs:string MaxLength=50
State	refStates
ZipCode	xs:string MaxLength=10
LicenseNumber	xs:string MaxLength=50
LicenseState	refStates
LicenseStatus	refLicenseStatus
LicenseClass	refLicenseClass
CitationNumber	xs:string MaxLength=25

PendingCitation	xs:boolean
Violation1	xs:string MaxLength=20
Violation2	xs:string MaxLength=20
Sex	refSex
DateOfBirth	xs:dateTime
SeatPositionRow	refSeatPositionRow
SeatPositionSeat	refSeatPositionSeat
SeatPositionOther	refSeatPositionOther
AirBagDeployed	refAirBagDeployed
Ejected	refEjected
RestraintSystem	refRestraintSystem
HelmetUse	refHelmetUse
InjuryType	refInjuryType
InjuryArea	refInjuryArea
InjuryDegree	refInjuryDegree
InjuryInfoSource	refInjuryInfoSource
AmbulanceCode	refAmbulanceCodes
DriverDistractedBy	refDriverDistracted
DriverActionsAtTimeOfCrash1	refDriverActionsAtTimeOfCrash
DriverActionsAtTimeOfCrash2	refDriverActionsAtTimeOfCrash
ConditionAtTimeOfCrash	refConditionAtTimeOfCrash
AlcoholTest	refAlcoholTests
AlcoholTestResultPending	xs:boolean
AlcoholBACResult	xs:double
DrugTest	refDrugTest
DrugTestResult	refDrugTestResult
EmailAddress	xs:string MaxLength=100
PedestrianManeuvers	refPedestrianManeuvers
BicyclistManeuvers	refBicyclistManeuvers

NonMotoristActionPriorToCrash refNonMotoristActPriorToCrash  
NonMotoristActionTimeOfCrash1 refNonMotoristActTimeOfCrash  
NonMotoristActionTimeOfCrash2 refNonMotoristActTimeOfCrash  
NonMotoristLocationTimeOfCrash refNonMotoristLocAtTimeOfCrash

## LicenseRestrictions

<u>Data Element</u>	<u>Data Type</u>
Restriction	refLicenseRestrictions

## LicenseEndorsements

<u>Data Element</u>	<u>Data Type</u>
Endorsement	refLicenseEndorsements

## NonVehiclePropertyDamage

<u>Data Element</u>	<u>Data Type</u>
NonVehiclePropertyDamageId	xs:integer
Name	xs:string MaxLength=50
Address	xs:string MaxLength=50
CityOrTown	xs:string MaxLength=50
State	refStates
ZipCode	xs:string MaxLength=10
DamagedPropertyOwnerType	refDamagedPropertyOwnerType
DamageDescription	xs:string MaxLength=512

## WitnessStatements

<u>Data Element</u>	<u>Data Type</u>
WitnessStatement	xs:base64Binary

DisplayOrder            xs:integer

## Diagram

### Data Element Data Type

JPGDiagram    xs:base64Binary

## DiagramMeasurements

<u>Data Element</u>	<u>Data Type</u>
DiagrammingMethod	refDiagrammingMethod
LineOrPointZeroOrPlusX	xs:string MaxLength=10
DistanceOrFromZeroOrMinusX	xs:string MaxLength=10
FromEdgeOrPlusY	xs:string MaxLength=10
MinusY	xs:string MaxLength=10
Description	xs:string MaxLength=50
PointLabel	xs:string MaxLength=3

## SYSTEM REFERENCE TABLES

### refAirBagDeployed

- 1 Not Applicable
- 2 Not Deployed
- 3 Deployed - Front
- 4 Deployed - Side
- 5 Deployed - Other (knee, air belt,...)
- 6 Deployed - Combination
- 7 Deployment - Curtain

### refAlcoholTests

- 1 Test Not Given

- 2 Test Refused
- 4 Blood
- 5 Breath
- 7 Urine
- 8 Other Chemical Test (Not Field Sobriety or PBT)

## **refAmbulanceCodes**

Refer to Schema for complete listing.

## **refBicyclistManeuvers**

- 1 Bicycle - Riding with Traffic
- 2 Bicycle - Riding against Traffic
- 3 Bicycle - Making Right turn
- 4 Bicycle - Making Left turn
- 5 Bicycle - Making U turn
- 6 Bicycle - Riding Across Road
- 7 Bicycle - Slowing, Stopping, Starting in Road
- 8 Bicycle - Other Bicyclist Action
- 99 Unknown

## **refBusUse**

- 0 Not a Bus
- 1 School (Public or Private)
- 2 Transit
- 3 Intercity
- 4 Charter
- 5 Other

## **refCargoBodyType**

- 1 Bus (seats for 9-15 people, including driver)
- 2 Bus (seats for 16 people or more, including driver)

- 3 Van/Enclosed Box
- 4 Cargo Tank
- 5 Flatbed
- 6 Dump
- 7 Concrete Mixer
- 8 Auto Transporter
- 9 Garbage/Refuse
- 10 Grain, Chips, Gravel
- 11 Pole
- 12 Logging
- 13 Intermodal Chassis
- 14 Vehicle Towing Another Motor Vehicle
- 15 Not Applicable/No Cargo Body
- 98 Other Cargo Body (not listed above)

### **refCargoCode**

- 1 Unloaded
- 2 Partially Loaded
- 3 Loaded

### **refCityOrTown**

Refer to Schema for complete listing.

### **refCommodityCode**

- A General Freight
- B Household Goods
- C Metal: Sheets, Coils, Rolls
- D Motor Vehicles
- E DriveAway / TowAway
- F Forest Products
- G Building Products

- H Mobile Homes
- I Machinery, Large Objects
- J Fresh Produce
- K Liquids / Gases in Cargo Tank
- L Intermodal
- M Passengers
- N Oil Field Equipment
- O Livestock
- P Grain, Feed, Hay
- Q Coal / Coke
- R Meat
- S Garbage, Refuse, Trash
- T U.S. Mail
- U Chemicals
- V Commodities, Dry Bulk
- W Refrigerated Foods
- X Beverage
- Y Paper Products
- Z Other

### **refConditionAtTimeOfCrash**

- 1 Apparently Normal
- 2 Physically Impaired or Handicapped
- 3 Emotional(Depressed, Angry, Disturbed, etc.)
- 4 Ill (Sick)
- 5 Asleep or Fatigued
- 6 Under the Influence of Medications/Drugs/Alcohol
- 7 Other

### **refContribCircumstancesEnviron**

- 1 None

2 Weather Conditions

3 Physical Obstructions

4 Glare

5 Animal(s) in Roadway

6 Other

## **refContribCircumstancesRoad**

1 None

2 Road Surface Condition (Wet, Icy, Snow, Slush, etc.)

3 Debris

4 Rut, Holes, Bumps

5 Work Zones (Construction / Maintenance / Utility)

6 Worn, Travel-Polished Surface

7 Obstruction in Roadway

8 Traffic Control Device Inoperative, Missing or Obscured

9 Shoulders (None, Low, Soft, High)

10 Non-Highway Work

11 Other

## **refContribCircumstancesVehicle**

1 None

2 Brakes

3 Exhaust System

4 Body, Doors

5 Steering

6 Power Train

7 Suspension

8 Tires

9 Wheels

10 Lights (head, signal, tail, brake)

11 Windows/Windshield

12 Mirrors

13 Wipers

14 Truck Coupling / Trailer Hitch / Safety Chains

15 Other

### **refDamagedPropertyOwnerType**

1 State

2 City or Town

3 Utilities

4 Private

### **refDiagrammingMethod**

1 Triangulation

2 X, Y Recording System

### **refDirFromNearestInterToCrash**

1 At Intersection

2 North

3 South

4 East

5 West

### **refDistFromNearestInterUnit**

1 Feet

2 Miles

### **refDriverActionsAtTimeOfCrash**

1 No Contributing Action

2 Ran Off Roadway

3 Failed to Yield Right-of-Way

4 Ran Red Light

5 Ran Stop Sign

6 Disregarded Other Traffic Sign

- 7 Disregarded Other Road Markings
- 8 Exceeded Posted Speed Limit
- 9 Drove Too Fast For Conditions
- 10 Improper Turn
- 11 Improper Backing
- 12 Improper Passing
- 13 Wrong Way
- 14 Followed Too Closely
- 15 Failed to Keep in Proper Lane
- 16 Operated Motor Vehicle in Erratic, Reckless, Careless, Negligent or Aggressive Manner
- 17 Swerved or Avoided Due to Wind, Slippery Surface, Motor Vehicle, Object, Non-Motorist in Roadway
- 18 Over-Correcting/Over-Steering
- 19 Other Contributing Action
- 20 Unknown

### **refDriverDistracted**

- 1 Not Distracted
- 2 Electronic Communication Devices (Cell Phone, Pager, etc.)
- 3 Other Electronic Devices (Navigation Device, Palm Pilot, Entertainment Device, etc)
- 4 Other Inside the Vehicle (Eating, Reading, Grooming, Smoking, Passengers, etc)
- 5 External Distraction (outside the vehicle)
- 6 Unknown

### **refDrugTest**

- 1 Test Not Given
- 2 Test Refused
- 3 Blood
- 4 Urine
- 5 Other

## **refDrugTestResult**

1 Positive

2 Negative

3 Pending

## **refEjected**

1 Not Ejected

2 Ejected Partially

3 Ejected Totally

## **refExtentOfDamage**

1 No Damage Observed

2 Minor Damage

3 Functional Damage

4 Towed Due to Disabling Damage

## **refGVWRGCWR**

1 10,000 lbs. or less

2 10,001 - 26,000 lbs.

3 Greater than 26,000 lbs.

## **refHelmetUse**

1 DOT-Compliant Motorcycle Helmet

2 Other Helmet

3 No Helmet

## **refHMClassNumber**

1 Explosives

2 Gases - Compressed, Dissolved or Refrigerated

3 Flammable Liquids

4 Flammable Solids-Combustible, Water Reactive

5 Oxidizing Substances-Organic Peroxides

6 Poisonous (Toxic) and Infectious Substances

7 Radioactive Material

8 Corrosives

9 Miscellaneous Dangerous Goods, or Blank

### **refInjuryArea**

1 Face

2 Head

3 Neck

4 Back

5 Arm(s)

6 Leg(s)

7 Chest Stomach

8 Internal

9 Entire Body

10 Other

### **refInjuryDegree**

1 Fatal

2 Incapacitating

3 Non-Incapacitating

4 Possible Injury

5 No Injury

### **refInjuryInfoSource**

1 Officer Observation

2 Individual Statement

3 Medical, Paramedical Observation

### **refInjuryType**

1 Amputation

2 Bleeding

3 Broken Bones

4 Burns

5 Concussion

- 6 Shock
- 7 Dizziness
- 8 Abrasion/Bruises
- 9 Complaint of Pain
- 10 Other

### **refLicenseClass**

- A A
- B B
- C C
- O Other

### **refLicenseEndorsements**

- 0 No Endorsements
- H Hazardous Materials
- I Motorcycle
- J Motor Driven Cycle
- K Military Active Duty
- M Moped
- N Tank Vehicle
- P Passenger (Bus) vehicle
- S School Bus (Over 15 Passengers)
- T Double/Triple Trailer
- X Combination Tank/Hazardous Material
- Z School Bus 15 passengers or less

### **refLicenseRestrictions**

- 0 No Restrictions
- A Corrective Lenses
- B Daylight Operation
- C Driver Improvement

D Motorcycle  
E Motor Driven Cycle  
G Geographical  
M Medication  
Q Conditional License  
R Moped  
S Special Equipment  
W Air Brakes NOT ALLOWED  
Z Ignition Interlock

### refLicenseStatus

A Active  
N None  
P Permit  
S Suspended

### refLightCondition

1 Daylight  
2 Dawn  
3 Dusk  
4 Dark - Lighted  
5 Dark - Not Lighted  
6 Dark - Unknown Lighting  
7 Unknown

### refLocationOfFirstHarmfulEvent

1 On Roadway  
2 Shoulder  
3 Median  
4 Roadside  
5 Gore  
6 Separator

- 7 In Parking Lane or Zone (Not Parking Lot)
- 8 Parking Lot / Off Roadway / Location Unknown
- 9 Outside Right-of-Way(trafficway)

## **refMostHarmfulEvent**

- 1 Overturn / Rollover
- 2 Fire / Explosion
- 3 Immersion
- 4 Jackknife
- 5 Cargo / Equipment Loss Or Shift
- 6 Fell / Jumped from Motor Vehicle
- 7 Thrown or Falling Object
- 8 Other Non-Collision
- 9 Pedestrian
- 10 Pedalcycle
- 11 Railway Vehicle - Train, Engine
- 12 Animal
- 13 Motor Vehicle in Transport
- 14 Parked Motor Vehicle
- 15 Struck by Falling, Shifting Cargo or Anything Set in Motion by Motor Vehicle
- 16 Work Zone / Maintenance Equipment
- 17 Other Non-Fixed Object
- 18 Impact Attenuator / Crash Cushion
- 19 Bridge Overhead Structure
- 20 Bridge Pier or Support
- 21 Bridge Rail
- 22 Cable Barrier
- 23 Culvert
- 24 Curb
- 25 Ditch

- 26 Embankment
- 27 Guardrail Face
- 28 Guardrail End
- 29 Concrete Traffic Barrier
- 30 Other Traffic Barrier
- 31 Tree (Standing)
- 32 Utility Pole / Light Support
- 33 Traffic Sign Support
- 34 Traffic Signal Support
- 35 Fence
- 36 Mailbox
- 37 Other Post Pole or Support
- 38 Other Fixed Object (wall, building, tunnel, etc.)
- 39 Unknown
- 40 Gate or Cable
- 41 Pressure Ridge

### **refMotorCarrierType**

- 1 Interstate Carrier
- 2 Intrastate Carrier
- 3 Not in Commerce-Government
- 4 Not in Commerce-Other Trucks (Over 10,000 lbs. GVWR/GCWR)

### **refNonMotoristActPriorToCrash**

- 1 Crossing Roadway
- 2 Waiting to Cross Roadway
- 3 Walking/Cycling Along Roadway with Traffic (In or Adjacent to Travel)
- 4 Walking/Cycling Along Roadway Against Traffic (In or Adjacent to Travel)
- 5 Walking/Cycling on Sidewalk
- 6 In Roadway - Other (Working, Playing, Etc.)
- 7 Adjacent to Roadway (e.g., Shoulder, Median)

- 8 Getting On/Off School Bus
- 9 Going to or from School (K-12)
- 10 Responder Working in Trafficway (Incident Response)
- 11 Other
- 12 None
- 13 Unknown

### **refNonMotoristActTimeOfCrash**

- 1 No Improper Action
- 2 Dart/Dash
- 3 Failure to Yield Right-Of-Way
- 4 Failure to Obey Traffic Signs, Signals, or Officer
- 5 In Roadway Improperly (Standing, Lying, Working, Playing)
- 6 Disabled Vehicle Related (Working on, Pushing, Leaving/Approaching)
- 7 Entering/Exiting Parked/Standing Vehicle
- 8 Inattentive (Talking, Eating, Etc.)
- 9 Not Visible (Dark Clothing, No Lighting, Etc.)
- 10 Improper Turn/Merge
- 11 Improper Passing
- 12 Wrong-Way Riding or Walking
- 13 Other
- 14 Unknown

### **refNonMotoristLocAtTimeOfCrash**

- 1 Intersection - Marked Crosswalk
- 2 Intersection - Unmarked Crosswalk
- 3 Intersection - Other
- 4 Midblock - Marked Crosswalk
- 5 Travel Lane - Other Location
- 6 Bicycle Lane

- 7 Shoulder/Roadside
- 8 Sidewalk
- 9 Median/Crossing Island
- 10 Driveway Access
- 11 Shared-Use Path or Trail
- 12 Non-Trafficway Area
- 13 Other
- 14 Unknown

## **refPedestrianManeuvers**

- 1 Crossing with Signal
- 2 Crossing against Signal
- 3 Crossing Marked Crosswalk no signal
- 4 Crossing No Signal or Crosswalk
- 5 Walking in road with traffic
- 6 Walking in road against traffic
- 7 Standing in road
- 8 Emerging from behind parked car
- 9 Child getting on/off School Bus
- 10 Getting on/off Vehicle
- 11 Pushing or working on vehicle
- 12 Working in road
- 13 Playing in road
- 14 Not in road
- 15 Following Trail
- 16 Walking on Sidewalk
- 17 Walking Adjacent to Roadway
- 18 Walking to/from School
- 19 Other Pedestrian Action

## **refPersonType**

- 1 Driver
- 2 Passenger
- 3 Pedestrian
- 4 Witness
- 5 Owner
- 6 Driver/Owner
- 7 Bicycle
- 8 Passenger/Owner
- 24 Last Known Operator
- 25 Last Known Operator/Owner

## **refPostedSpeedLimit**

- 1 Not Posted 25 Zone
- 2 Not Posted 45 Zone
- 3 Unknown
- 5 5 Mph
- 10 10 Mph
- 15 15 Mph
- 18 18 Mph
- 20 20 Mph
- 25 25 Mph
- 30 30 Mph
- 35 35 Mph
- 40 40 Mph
- 45 45 Mph
- 50 50 Mph
- 55 55 Mph
- 60 60 Mph
- 65 65 Mph

81 N/A

### **refPreCrashActions**

- 1 Following roadway
- 2 Wrong way into opposing traffic
- 3 Right turn on red
- 4 Left turn on red
- 5 Making right turn
- 6 Making left turn
- 7 Making U turn
- 8 Starting from parked
- 9 Starting in traffic
- 10 Slowing in traffic
- 11 Stopped in traffic
- 12 Entering parked position
- 13 Parked Legally
- 14 Parked Illegally
- 15 Avoiding Vehicle Object, Pedestrian, Animal in Roadway
- 16 Skidding
- 17 Changing Lanes
- 18 Overtaking Passing
- 19 Merging
- 20 Backing
- 30 Other Vehicle Action
- 31 Following Trail
- 99 Unknown

### **refReportingAgency**

Refer to Schema for complete listing.

### **refRestraintSystem**

- 1 Not Applicable

- 2 None Used - Motor Vehicle Occupant
- 3 Shoulder and Lap Belt Used
- 4 Shoulder Belt Only Used
- 5 Lap Belt Only Used
- 6 Restraint Used - Other
- 7 Child Restraint System - Forward Facing
- 8 Child Restraint System - Rear Facing
- 9 Child Restraint System - Used Incorrectly
- 10 Booster Seat
- 11 Child Restraint - Other

### **refRoadGrade**

- 1 Level
- 2 On Grade
- 3 Top of Hill
- 4 Bottom of Hill
- 5 Other

### **refRoadSurfaceCondition**

- 1 Dry
- 2 Wet
- 3 Snow
- 4 Slush
- 5 Ice/Frost
- 6 Water (Standing, Moving)
- 7 Sand
- 8 Mud, Dirt, Gravel
- 9 Oil
- 10 Other
- 11 Unknown

## **refSchoolBusRelatedCrash**

- 1 Yes, School Bus Directly Involved
- 2 Yes, School Bus Indirectly Involved
- 3 No

## **refSeatPositionOther**

- 1 Sleeper Section of Cab (truck)
- 2 Other Enclosed Cargo Area
- 3 Unenclosed Cargo Area
- 4 Trailing Unit
- 5 Riding on Motor Vehicle Exterior (non-trailing unit)
- 6 Unknown

## **refSeatPositionRow**

- 1 Front Row
- 2 Second Row
- 3 Third Row
- 4 Fourth Row
- 5 Other Row (bus, 15 passenger van, etc.)
- 6 Unknown

## **refSeatPositionSeat**

- 1 Left (driver for most vehicles)
- 2 Middle
- 3 Right
- 4 Other
- 5 Unknown

## **refSequenceOfEventsVehicle**

- 1 Overturn / Rollover
- 2 Fire / Explosion
- 3 Immersion
- 4 Jackknife

- 5 Cargo / Equipment Loss or Shift
- 6 Equipment Failure (blown tire, brake failure, etc.)
- 7 Separation of Units
- 8 Went Off Roadway Right
- 9 Went Off Roadway Left
- 10 Cross Median
- 11 Cross Centerline
- 12 Downhill Runaway
- 13 Fell/Jumped From Motor Vehicle
- 14 Reentering Roadway
- 15 Thrown or Falling Object
- 16 Other Non-Collision
- 17 Pedestrian
- 18 Pedalcycle
- 19 Railway Vehicle (train, engine)
- 20 Animal
- 21 Motor Vehicle In Transport
- 22 Parked Motor Vehicle
- 23 Struck By Falling, Shifting Cargo or Anything Set in Motion By Motor Vehicle
- 24 Work Zone/Maintenance Equipment
- 25 Other Non-Fixed Object
- 26 Impact Attenuator/Crash Cushion
- 27 Bridge Overhead Structure
- 28 Bridge Pier or Support
- 29 Bridge Rail
- 30 Cable Guardrail Barrier
- 31 Culvert
- 32 Curb
- 33 Ditch

- 34 Embankment
- 35 Guardrail Face
- 36 Guardrail End
- 37 Concrete Traffic Barrier
- 38 Other Traffic Barrier
- 39 Tree (standing)
- 40 Utility Pole/Light Support
- 41 Traffic Sign Support
- 42 Traffic Signal Support
- 43 Other Post, Pole, or Support
- 44 Fence
- 45 Mailbox
- 46 Other Fixed Object (wall, building, tunnel, etc.)
- 47 Unknown
- 48 Gate or Cable
- 49 Pressure Ridge
- 50 No Other Events

### **refSex**

- 1 Male
- 2 Female
- 3 Unknown

### **refSpecialFunctionVehicle**

- 1 No Special Function
- 2 Taxi
- 3 Vehicle Used as School Bus
- 4 Vehicle Used as Other Bus
- 5 Military
- 6 Police
- 7 Ambulance

## refStates

AB Alberta

AG Aguascalientes

AK Alaska

AL Alabama

AR Arkansas

AS American Samoa

AZ Arizona

BA Baja California Norte

BC British Columbia

BJ Baja California Sur

CA California

CE Campeche

CH Chihuahua

CI Chiapas

CL Colima

CN Canada

CO Colorado

CT Connecticut

CU Coahuila de Zaragoza

DC District of Columbia

DE Delaware

DF Distrito Federal Mexico

DO Durango

DS The U.S. Department of State

EM Estado de Mexico

FL Florida

FM Federated States of Micronesia

GA Georgia  
GM Guam  
GR Guerrero  
GU Guanajuato  
HI Hawaii  
HL Hidalgo  
IA Iowa  
ID Idaho  
IL Illinois  
IN Indiana  
JL Jalisco  
KS Kansas  
KY Kentucky  
LA Louisiana  
MA Massachusetts  
MB Manitoba  
MC Michoacan de Ocampo  
MD Maryland  
ME Maine  
MH Marshall Islands  
MI Michigan  
MN Minnesota  
MO Missouri  
MP Northern Mariana Islands  
MR Morelos  
MS Mississippi  
MT Montana  
MX Mexico  
NA Nayarit

NB New Brunswick  
NC North Carolina  
ND North Dakota  
NE Nebraska  
NF Newfoundland and Labrador  
NH New Hampshire  
NJ New Jersey  
NL Nuevo Leon  
NM New Mexico  
NS Nova Scotia  
NT Northwest Territory  
NU Nunavut  
NV Nevada  
NY New York  
OA Oaxaca  
OH Ohio  
OK Oklahoma  
ON Ontario  
OR Oregon  
PA Pennsylvania  
PB Puebla  
PE Prince Edward Island  
PR Puerto Rico  
PW Palau (till 1994)  
QC Quebec  
QR Quintana Roo  
QU Queretaro de Arteaga  
RI Rhode Island  
SC South Carolina

SD South Dakota

SI Sinaloa

SK Saskatchewan

SL San Luis Potosi

SO Sonora

TA Tamaulipas

TB Tabasco

TL Tlaxcala

TN Tennessee

TX Texas

US United States

UT Utah

VA Virginia

VC Veracruz Llave

VI Virgin Islands of the U.S.

VT Vermont

WA Washington

WI Wisconsin

WK Wake Island

WV West Virginia

WY Wyoming

YT Yukon Territory

YU Yucatan

ZA Zacatecas

00 Other

## **refTrafficControlDevice**

1 Traffic Signals (Stop and Go)

2 Traffic Signals (Flashing)

3 Advisory/Warning Sign

- 4 Stop Signs - All Approaches
- 5 Stop Signs - Other
- 6 Yield Sign
- 7 Curve Warning Sign
- 8 Officer, Flagman, School Patrol
- 9 School Bus Stop Arm
- 10 School Zone Sign
- 11 R.R. Crossing Device
- 12 No Passing Zone
- 13 None
- 14 Other

### **refTypeLocation**

- 1 Straight Road
- 2 Curved Road
- 3 Three Leg Intersection
- 4 Four Leg Intersection
- 5 Five or More Leg Intersection
- 6 Driveways
- 7 Bridges
- 8 Interchanges
- 9 Other
- 10 Trail
- 11 Open Field
- 12 Gravel Pit
- 13 Woods
- 14 Lake/Pond
- 15 River/Stream
- 16 Ocean
- 17 Parking Lot

- 18 Private Way
- 19 Cross Over
- 20 Railroad Crossing
- 21 Traffic Circle/Roundabout

### **refTypeOfCrash**

- 1 Object in Road
- 2 Rear End / Sideswipe
- 3 Head-on / Sideswipe
- 4 Intersection Movement
- 5 Pedestrians
- 6 Train
- 7 Went Off Road
- 8 All Other Animal
- 9 Bicycle
- 10 Other
- 11 Jackknife
- 12 Rollover
- 13 Fire
- 14 Submersion
- 15 Thrown or Falling Object
- 16 Bear
- 17 Deer
- 18 Moose
- 19 Turkey

### **refUnitTypes**

- 1 Passenger Car
- 2 (Sport) Utility Vehicle
- 3 Passenger Van
- 4 Cargo Van (10K lbs or Less)

- 5 Pickup
- 6 Motor Home
- 7 School Bus
- 8 Transit Bus
- 9 Motor Coach
- 10 Other Bus
- 11 Motorcycle
- 12 Moped
- 13 Low Speed Vehicle
- 14 Autocycle
- 15 Experimental
- 16 Other Light Trucks (10,000 lbs or Less)
- 17 Medium/Heavy Trucks (More than 10,000 lbs)
- 18 ATV - (4 wheel)
- 19 ATV - (3 wheel)
- 20 ATV - (2 wheel)
- 21 Snowmobile
- 22 Pedestrian
- 23 Bicyclist
- 24 Witness
- 25 Other

#### **refVehicleColor**

- 1 Black
- 2 Beige
- 3 Burgundy
- 4 Blue
- 5 Green
- 6 Gold
- 7 Brown

- 8 Grey, Silver
- 9 Purple,Orange,Other
- 10 Red
- 11 Maroon
- 13 Cream
- 14 White
- 15 Tan
- 16 Yellow

## **refVehicleConfiguration**

- 1 Passenger Car (only if vehicle has Hazardous Materials Placard)
- 2 Light Truck (only if vehicle has Hazardous Materials Placard)
- 3 Bus (seats for 9-15 people, including driver)
- 4 Bus (seats for 16 people or more, including driver)
- 5 Single-Unit Truck (2 axles, 6 tires)
- 6 Single-Unit Truck (3 axles)
- 7 Single-Unit Truck (4 axles with rear tri-axle)
- 8 Single-Unit Truck (5 or more axles )
- 9 Truck/Trailer(s) [Single-Unit Truck with Trailer(s)]
- 10 Truck Tractor (without trailer, bobtail or saddle mount)
- 11 Tractor/Semi-Trailer (one trailer - 5 axles)
- 12 Tractor/Semi-Trailer (one trailer - 6 axles)
- 13 Tractor/Semi-Trailer (one trailer - All other axle configurations)
- 14 Tractor/Doubles (two trailers)
- 15 Tractor/Triples (three trailers)
- 99 Other Truck Greater Than 10,000 lbs. (not listed above)

## **refVehicleDamageArea**

- 1 Front Passenger Corner
- 2 Front Passenger Quarter Panel
- 3 Center Passenger Side

4 Rear Passenger Quarter Panel

5 Rear Passenger Corner

6 Rear

7 Rear Driver Side

8 Rear Driver Quarter Panel

9 Center Driver Side

10 Front Driver Quarter Panel

11 Front Driver Corner

12 Front

13 Top/Roof

14 Undercarriage

15 Non-Collision

16 Unknown

### **refVehicleMake**

1 ACURA

2 ALFA ROMEO

3 AMERICAN MOTORS

4 ASUNA

5 AUDI

6 AUSTIN

7 BMW

8 BUICK

9 CADILLAC

10 CAPRI

11 CHEVROLET

12 CHRYSLER

13 DAEWOO

14 DAIHATSU

15 DODGE

- 16 EAGLE
- 17 FIAT
- 18 FORD
- 19 FREIGHTLINER
- 20 FWD
- 21 GEO
- 22 GM
- 23 GMC
- 24 HARLEY DAVIDSON
- 25 HINO
- 26 HONDA
- 27 HYUNDAI
- 28 INFINITI
- 29 INTERNATIONAL
- 30 ISUZU
- 31 IVECO
- 32 JAGUAR
- 33 JEEP
- 34 JENSEN
- 35 KAWASAKI
- 36 KENWORTH
- 37 KIA
- 38 LADA
- 39 LANCIA
- 40 LAND ROVER
- 41 LEXUS
- 42 LINCOLN
- 43 MACK
- 44 MAZDA

45 MERCEDES BENZ

46 MERCURY

47 MERKUR

48 MG

49 MITSUBISHI

50 NISSAN

51 OLDSMOBILE

52 OPEL

53 OSHKOSH

54 PASSPORT

55 PETERBILT

56 PEUGEOT

57 PLYMOUTH

58 PONTIAC

59 PORSCHE

60 RENAULT

61 SAAB

62 SATURN

63 SSI

64 STERLING

65 SUBARU

66 SUZUKI

67 TOYOTA

68 TRIUMPH

69 VOLKSWAGEN

70 VOLVO

71 WHITE

72 WHITEMGMC

73 WINNEBAGO

74 YAMAHA

75 YUGO

99 OTHER

## **refVehicleTravelDirection**

- 1 Northbound
- 2 Southbound
- 3 Eastbound
- 4 Westbound
- 5 Not On Roadway
- 6 Unknown

## **refViolations**

Refer to Schema for complete listing.

## **refWeatherCondition**

- 1 Clear
- 2 Cloudy
- 3 Fog, Smog, Smoke
- 4 Rain
- 5 Sleet, Hail (Freezing Rain or Drizzle)
- 6 Snow
- 7 Blowing Snow
- 8 Severe Crosswinds
- 9 Blowing Sand, Soil, Dirt
- 10 Other

## **refWorkZoneLocation**

- 1 Before the First Work Zone Warning Sign
- 2 Advance Warning Area
- 3 Transition Area
- 4 Activity Area
- 5 Termination Area

## **refWorkZonePolicePresent**

- 1 Officer Present
- 2 Law Enforcement Vehicle Only Present
- 3 No

## **refWorkZoneType**

- 1 Lane Closure
- 2 Lane Shift/Crossover
- 3 Work on Shoulder or Median
- 4 Intermittent or Moving Work
- 5 Other

## **refYesNo**

- 1 Yes
- 2 No

## **refYesNoUnknown**

- 1 Yes
- 2 No
- 3 Unknown

## **Maine Crash Data Exchange Standard Audit Rules**

Please refer to the Maine Crash Data Standard XSL document for design and implementation.

## **Appendix A – State of Maine Crash Report Forms – 2010**